

REMARKS

The Rejections

Claims 1, 9, 11, 13, 14, 18, and 19 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Hess et al. (EP 1 273 355) [hereinafter “Hess ’355”] in view of Luginbuhl et al. (U.S. Patent 6,523,762) [hereinafter “Luginbuhl”] and Brown (U.S. Patent 5,526,957).

Claims 2 and 12 stand rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Hess’355 and Luginbuhl and Brown, and further in view of Silverbrook (U.S. Patent 6,669,333).

Claims 3 and 4 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Hess, Luginbuhl, and Brown.

Claims 5 and 15 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Hess, Luginbuhl, and Brown, and further in view of Adachi et al. (U.S. Patent Publication No. 2002/ 0158952 A1) [hereinafter “Adachi”].

Claims 6 and 16 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Hess, Luginbuhl, and Brown, and further in view of Koto (U.S. Patent 4,434,430).

Claims 7 and 17 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Hess, Luginbuhl, and Brown, and further in view of Hartman (U.S. Patent Publication No. 2003/0085966 A1).

Claim 10 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Hess, Luginbuhl, and Brown, and further in view of Adachi et al. (U.S. Patent Publication No. 2003/0107159) [hereinafter “Adachi”].

Applicants’ Arguments

Regarding the rejection of claim 1, as a first matter there is no *prima facie* case of obviousness because the combined teachings of the references fail to teach the elements of

the claim. In particular, the references fail to teach a “space [that] consists of at least two sub-spaces separated by a flexible but leak-tight separation” wherein the space is formed in a first substrate and the space is enclosed in the first substrate and a second substrate having one or more nozzle membrane sections, as recited in claim 1. On the contrary, the portions of Brown relied on to teach the claimed at least two sub-spaces in the substrate are simply the interiors (128, 130) of liquid product bags or pouches (102, 104) (col. 6, lines 24-35). These are not sub-spaces of a space in a substrate as recited in the claims, but bags that are entirely unrelated to any substrate. Thus, Applicants respectfully traverse the rejection of claim 1.

Second, there is neither motivation to combine the three references cited in the obviousness rejection, nor any expectation of success in the combination. Where claimed subject matter has been rejected as obvious in view of a combination of prior art references, a proper analysis under § 103 requires that (1) the prior art must suggest to those of ordinary skill in the art that they should perform the invention; and (2) the prior art must have revealed a reasonable expectation of success in performing the invention. In re Vaeck, 20 U.S.P.Q.2d 1438, 1442 (Fed. Cir. 1991). Both the suggestion and the reasonable expectation of success must be founded in the prior art, not in the applicant's disclosure. Noelle v. Lederman, 355 F.3d 1343, 1352 (Fed. Cir. 2004). Regarding the rejection of claim 1, the relied-upon references do not meet this burden: the references do not suggest the proposed combination and the references do not suggest that such a combination would work.

In this instance, Brown relates to a *high-pressure* gun for dispensing one or more reactive components under elevated pressure generated by a chemical reaction (col. 4, lines 32-36). Not only does no motivation exist to combine Brown with Hess and the other cited references, but the pressures used in Brown would render inoperable or even destroy an apparatus of the present invention, with a tightly-toleranced high-density array of outlet nozzles and channels as claimed. Simply put, the combination would not work, and one of

reasonable skill in the art would have no expectation of success, nor any motivation to make the combination. Thus, Applicants respectfully further traverse the rejection of claim 1 under § 103 for lack of a *prima facie* case of obviousness.

Regarding claims 3 and 4, the claimed high nozzle density is possible because of the claimed protrusions (recited in claim 1), which help release the liquid from the apparatus. These unexpectedly superior results are described in the specification on page 14, bottom paragraph, and surrounding text. Moreover, the protrusions create a dispersion, which is undesired in high-density printing (because it would cause blurring), thus undercutting the motivation asserted by the Examiner to make the combination. For these reasons, the claims reciting high nozzle density are further patentable over the cited references.

Finally, all of the dependent claims are patentable over the cited references for the reasons discussed above with respect to claim 1.

CONCLUSION

For all of the above reasons, claims 1-7 and 9-19 are in condition for allowance and a prompt notice of allowance is earnestly solicited.

Questions are welcomed by the below-signed attorney for Applicants.

Respectfully submitted,

GRIFFIN & SZIPL, P.C.



Joerg-Uwe Szipl
Registration No. 31,799

GRIFFIN & SZIPL, P.C.
Suite PH-1
2300 Ninth Street, South
Arlington, VA 22204

Telephone: (703) 979-5700
Facsimile: (703) 979-7429
Email: gands@szipl.com
Customer No.: 24203